

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-5 (canceled)

Claim 6 (currently amended): ~~The switching device of claim 5,~~ A switching device comprising:

a capacitive switch;

a magnetic field source operative to apply a magnetic field across the switch; and

an electrical conductor providing there along a path of conduction of a current in opposite directions, the electrical conductor being juxtaposed with the capacitive switch and extending transversely to the magnetic field for triggering the capacitive switch between an on- and off-state in accordance with a direction of current flow along the electrical conductor,

wherein the capacitive switch is an electrostatic switch, the switching device being a microelectromechanical Lorentz-force assisted switching device,

wherein the electrostatic switch is configured to have a pull-down electrode continuously supported by a substrate and a bridge straddling the pull-down electrode and being operative to move towards and away from the pull-down electrode in accordance with the direction of current flow along the electrical conductor to selectively set the on- and off-state of the capacitive switch,

wherein the bridge has a central body elevated above the pull-down electrode in the off-state of the capacitive switch and spaced apart pads coupled to the central body and supported on the substrate, and

wherein the bridge further includes multiple hinges having a width narrower than a width of the central body and extending between the central body and the pads.

Claim 7 (canceled)

Claim 8 (currently amended): ~~The switching device of claim 4,~~ A switching device comprising:

a capacitive switch;

a magnetic field source operative to apply a magnetic field across the switch; and

an electrical conductor providing there along a path of conduction of a current in opposite directions, the electrical conductor being juxtaposed with the capacitive switch and extending transversely to the magnetic field for triggering the capacitive switch between an on- and off-state in accordance with a direction of current flow along the electrical conductor,

wherein the capacitive switch is an electrostatic switch, the switching device being a microelectromechanical Lorentz-force assisted switching device,

wherein the electrostatic switch is configured to have a pull-down electrode continuously supported by a substrate and a bridge straddling the pull-down electrode and being operative to move towards and away from the pull-down electrode in accordance with the direction of current flow along the electrical conductor to selectively set the on- and off-state of the capacitive switch,

wherein the electrical conductor is provided on a top surface of the bridge, and

wherein the electrical conductor has a frame configured to have a pair of spaced-apart strips or wires attached to the bridge of the electrostatic switch and end supports bridging the spaced apart strips or wires and formed on the substrate.

Claim 9 (original): The switching device of claim 8, wherein the strips or wires and the bridge have at least one projection and indentation, respectively, provided with opposing surfaces which extend complementary to and engage one another to provide the electrical conductor and the bridge with synchronous displacement between the on- and off-state of the electrostatic switch.

Claim 10 (currently amended): The switching device of ~~claim 4~~ claim 6 or 8, further comprising an electric source coupled to the electrical conductor and a magnetic field generating source selected from a permanent magnet or a coil, wherein coupling of the magnetic and electric fields produces Lorentz force directed substantially perpendicular to the magnetic and electric fields.

Claim 11 (original): The switching device of claim 10, wherein the electric source generates a pulse-shaped signal, the switching device further comprising a device for reversing the direction of current flow along the electrical conductor.

Claim 12 (canceled)

Claim 13 (currently amended): ~~The MEMS switch of claim 12,~~

A microelectromechanical system (MEMS) switch comprising:

a substrate;

multiple contacts spaced from one another and supported by the substrate; and

a capacitive switching assembly provided on the substrate and positionable in magnetic and electrical fields extending coplanar with but transversely to one another to generate a Lorentz force applied to the capacitive switching assembly to selectively short the multiple contacts,

wherein the capacitive switching assembly is an electrostatic switch including
a pull-down electrode fixed to the substrate,

a flexible bridge having opposite ends, which flank the pull-down electrode, and a central body extending between the opposite ends and facing the pull-down electrode, and

a flexible conductor extending on top of and coupled to the bridge so that the coupled flexible conductor and bridge provide a path of conduction of a current between the multiple contacts, the magnetic field extending coplanar with the flexible bridge but transversely to the path of conduction, whereas the Lorentz force is produced and extends in a plane lying substantially perpendicular to a plane of the flexible bridge.

Claim 14 (original): The MEMS switch of claim 13, wherein the coupled flexible conductor and bridge flex synchronously toward the substrate to short the multiple contacts upon directing a current flow along the path in one direction and deflect from the multiple contacts upon reversing the current flow along the path.

Claims 15-20 (cancelled)